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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,492	01/31/2001	Daniel J. Graney	P/12-839	3104

7590 08/03/2004
CHIEF PATENT COUNSEL
ENGLEHARD CORPORATION
101 WOOD AVENUE
ISELIN, NJ 08830

EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/774,492

Applicant(s)

GRANEY, DANIEL J.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This Office Action is responsive to the amendment filed 05-24-04.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 5,451,449 to Shetty et al. in view of USPN 6,602,585 to Graney.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant application claims an uniaxial oriented multilayered film, while the Shetty reference claims a film that has not been oriented uniaxially having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2), thickness of 0.007-0.034 mm, and thread width of 0.15 to 0.33 mm (claim 9). However, it would have been obvious to one of ordinary skill in the art to make an uniaxial oriented multilayered film having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) since Graney teaches a shrinkable iridescent film, providing it is known to uniaxially stretch/orient a

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coextruded multilayered iridescent film. See col. 3, lines 55-63. A multilayered iridescent film having tensile at break being 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) is optimizable. Especially since the film has the same thickness as Applicant claims. The same film thickness is taught and claimed by Graney at col. 5, lines 20-36 and patented claim 1. Stretching the film of Shetty to yield the tensile at break property as in the instant application is optimizable because tensile at break is effected by the stretch ratio and thickness of a film. It is a common property obtained from a mechanical test using an instrument such as an Instron. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Although no tensil properties are mentioned by Graney, stretching films are contemplated and the films are oriented in the same manner as applicant claims. Hence it would have been obvious to one of ordinary skill in the art to modify the film of Shetty where a multilayered iridescent film has a tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) since it has been held that experimental modification of the prior art in order to ascertain optimum operating conditions (e.g. stretch ratios, temperatures, speed of the tensile gauges, or other process variables that effect mechanical properties such as tensile strength/tear) fails to render Applicant's claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233.

Regarding claims 3 and 6, Shetty teaches the refractive index is at least about 0.06. See patented claim 6. Also regarding the amount of multilayers being at least 35 in instant claims 3 and 6, see patented claim 4.

Regarding claims 4 and 7, the film being a terephthalate is claimed, see patented claim 7.

Regarding claim 5 and 8, the only difference is that the contiguous adjacent layer is a thermoplastic elastomer. An elastomer is well known in the art to use since Graney teaches elastomers are suitable to use in coextruded films at col. 1, lines 55-68. Hence it would have been obvious to one of ordinary skill in the art to modify the uniaxial oriented film of Shetty to include an elastomer since Graney teaches elastomers are conventional to use.

Regarding claim 9, Patent '499 differs in that it is not formed in a microfilament having a width of 0.15 to 3 mm. However, Shetty provides the same film. That the film is formed in a thread having the aforesaid width is not in itself construed to be a matter of invention. It is well known to change the shape and size of a film which happens to be the same material commensurate with the use. For example, plastic tape, food wrap, or lenses have various thicknesses. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, a film formed as a thread having a 0.15 to 3 mm width is a mere optimizable adjustment as width is an result effective property. Width effects the strength. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,451,449 to Shetty et al. in view of USPN 5427842 to Bland et al.

The Shetty reference claims a film that has not been oriented uniaxially having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2), and thickness of 0.007-0.034 mm. It would have been obvious to one of ordinary skill in the art to make an uniaxial oriented multilayered film having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) because the same thickness and refractive index is provided for by Shetty. One of ordinary skill in the art would expect the tensile property to be present as the same film material and thicknesses are taught. Further, a multilayered iridescent film having tensile at break being 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) is optimizable. Especially since the film has the same thickness as Applicant claims. Stretching the film of Shetty to yield the tensile at break property as in the instant application is optimizable because tensile at break is effected by the stretch ratio and thickness of a film. It is a common property obtained from a mechanical test using an instrument such as an Instron. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. It would have been obvious to one of ordinary skill in the art to modify the film of Shetty where a multilayered iridescent film has a tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) since it has been held that experimental modification of the prior art in order to ascertain optimum operating conditions (e.g. stretch ratios, temperatures, speed of the tensile gauges, or other process variables that effect mechanical properties such as tensile strength/tear) fails to render Applicant's claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. While Shetty does not teach the film uniaxially oriented,

Bland teaches a multilayer film that when uniaxially oriented stiffness, modulus and creep resistance of the film are enhanced (col. 12, lines 20-22). It would have been obvious to one of ordinary skill in the art to modify the film of Shetty to further uniaxially orient a film because Bland teaches doing so enhances the film exhibiting improvements in stiffness, modulus and creep resistance of the film (col. 12, lines 20-22 of Bland).

Regarding claims 3 and 6, Shetty teaches the refractive index is at least about 0.06. See patented claim 6. Also regarding the amount of multilayers being at least 35 in instant claims 3 and 6, see patented claim 4.

Regarding claims 4 and 7, the film being a terephthalate is claimed, see patented claim 7.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,451,449 to Shetty et al. in view of USPN 5427842 to Bland et al. and further in view of USPN 5,089,318 to Shetty et al. (Shetty '318).

Shetty is relied upon above. Regarding claims 5 and 8, the only difference is that the contiguous adjacent layer is a thermoplastic elastomer. Shetty '318 teaches iridescent multilayer films. An elastomer is well known in the art to use because Shetty '318 teaches elastomers are suitable to use in coextruded films at col. 3, lines 58-68 with polymers such as PET that differ in refractive index of at least 0.03. See patented claim 1 also. Hence it would have been obvious to one of ordinary skill in the art to modify the uniaxial oriented film of Shetty to include an elastomer Shetty '318 teaches elastomers are conventional to use in coextruded films at col. 3, lines 58-68 with polymers such as PET in order to vary the refractive index within the multilayer film.

Claim 9 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,451,449 to Shetty et al. in view of USPN 5427842 to Bland et al. and further in view of USPN 3,647,612 to Schrenk et al.

Patent '499 is relied upon above. Regarding claim 9, Patent '499 differs in that it is not formed in a microfilament having a width of 0.15 to 3 mm. However, Shetty provides the same film. That the film is formed in a thread having the aforesaid width is not in itself construed to be a matter of invention. It is well known to change the shape and size of a film which happens to be the same material commensurate with the use. For example, plastic tape, food wrap, or lenses have various thicknesses. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Further, a film formed as a thread having a 0.15 to 3 mm width is a mere optimizable adjustment as width is an result effective property. Width effects the strength. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Moreover, Schrenk teaches an iridescent multilayered film of at least about 10 very thin layers being slit into narrow filaments by changing the die plate in an extruder in order to produce a yarn or fiber for use in textile applications. See col. 12, lines 1-28 and col. 28, lines 1-10. See also patented claim 3 teaching the sheet is uniaxially stretched. It would have been obvious to one of ordinary skill in the art to modify the film of Shetty to produce a filament as claimed because Schrenk teaches a similar material slit into filaments to form yarn or fibers for textile applications (col. 12, lines 1-28 and

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col. 28, lines 1-10 of Schrenk). Again, to the width requirement between 0.15 to 3mm, width is an optimizable feature as it effects the strength.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,451,449 to Shetty et al. in view of USPN 5,825,542 to Cobb, Jr. et al.

The Shetty reference claims a film that has not been oriented uniaxially having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2), and thickness of 0.007-0.034 mm. It would have been obvious to one of ordinary skill in the art to make an uniaxial oriented multilayered film having a mechanical property ultimate tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) because the same thickness and refractive index is provided for by Shetty. One of ordinary skill in the art would expect the tensile property to be present as the same film material and thicknesses are taught. Further, a multilayered iridescent film having tensile at break being 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) is optimizable. Especially since the film has the same thickness as Applicant claims. Stretching the film of Shetty to yield the tensile at break property as in the instant application is optimizable because tensile at break is effected by the stretch ratio and thickness of a film. It is a common property obtained from a mechanical test using an instrument such as an Instron. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. It would have been obvious to one of ordinary skill in the art to modify the film of Shetty where a multilayered iridescent film has a tensile at break of 2.5 to 9 kgf and/or 4.5 to 7 kgf (claim 2) since it has been held that experimental modification of the prior art in order to ascertain optimum operating conditions (e.g. stretch ratios, temperatures, speed of the tensile gauges, or other process variables that effect mechanical properties such as

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tensile strength/tear) fails to render Applicant's claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. While Shetty does not teach the film uniaxially oriented, Cobb, Jr. teaches a multilayer film that when uniaxially oriented the refractive index can be controlled in the direction of the stretch, thereby resulting in a polarizer (col. 6, lines 7-20). It would have been obvious to one of ordinary skill in the art to modify the film of Shetty to further uniaxially orient a film because Cobb, Jr. teaches doing so creates a polarizer and the refractive index can be exhibited in the direction of the stretch (col. 6, lines 7-20).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Applicant argues the obviousness double patenting rejection over the use of Graney because the date is not prior to the filing date of the instant application. However, the date does not disqualify the use of the patent in an obviousness double patenting rejection, but does disqualify the use of the patent in a 102/103 rejection, thus reasoning for the removal of the 103 rejection from the Office Action. Shetty is still used in the rejection to teach the thickness, materials, and refractive indices. Graney is still used to teach the uniaxial orientation of the film and the use of elastomers. Applicant argues that Graney does not show a tensile value as claimed, but Graney does not have to show this value as such value would be expected because the same material, thickness, and refractive indices are already taught. Bland is now provided to teach the use of a uniaxially oriented film and its properties regarding tensile strength. Shetty '318 is now provided to teach the use of elastomers as prior art. Schrenk is now provided to teach the use of a uniaxially oriented film formed into filaments as prior art. Applicant also

argues regarding claim 9 that the Examiner is ignoring all the limitations and trying to fit a round peg into a square hole. The Applicant has not persuasively argued because the Examiner did not ignore the limitations, as previously set forth and above now, forming a filament out of a film is not in itself construed to be a matter of invention because simply changing the shape of the same material and layers is not patentable. Again, width of a filament is an optimizable feature as the width effects the strength.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,661,839 to Whitehead teaches a multilayer optical film where uniaxial orientation provides results in producing a polarizer where the refractive index is in the stretched direction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamra L. Dicus
Examiner
Art Unit 1774

July 27, 2004

Supervisory

RENA DYE
PRIMARY EXAMINER
A.U. 1774